

Local Area Traffic Management (LATM) POLICY for Cumberland City Council



CUMBERLAND
CITY COUNCIL

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LOCAL AREA TRAFFIC CALMING POLICY

Cumberland City Council

A. Mission Statement

It shall be the mission of the Cumberland City Council to provide traffic calming solutions to vehicular uses of streets that adversely impact the neighbourhood quality of life and the safety of the residents in that neighbourhood.

Council will work closely with residents to properly identify the concerns, conduct appropriate studies to quantify any problems and develop options for dealing with the quantified problems.

B. Objective

The objective of this policy is to ensure that a consistent policy is developed of moderating the adverse effects of vehicular traffic on the suburban environment and urban lifestyle of residents in Cumberland LGA and also setting precedence on a formal process in deriving a safe, secure and vibrant City.

The key objectives of Local Area Traffic Management (LATM) schemes are:

- Reduction in the number and severity of accidents;
- Improve safety and convenience for pedestrian, cyclists, the elderly and other vulnerable road users;
- Reduce noise and air pollution;
- Provide space for non-traffic activities;
- Improve the visual environment;
- Environmentally friendly streets;
- Improve public transport;
- Discourage the use of inappropriate routes by vehicles;
- Create and maintain quality residential environments;
- Facilitate street activity and social interaction;
- Reduce traffic space demands so that road geometry can be made less excessive, thus saving on construction costs.

C. Traffic Calming Procedure

Traffic Calming is the application of techniques at a specific location which result a reduction in vehicular speeds, traffic volumes, traffic noise and accidents. The techniques may include educational programs, neighbourhood speed watch programs, improvements in traffic signing, increased enforcement, and reduction of speed limits or physical alterations to the roadway to change driving patterns. The support of the residents where traffic calming is being considered is critical to the success of any neighbourhood traffic management program and they must therefore be an integral part of any process.

It is the goal of the Cumberland City Council to achieve solutions to traffic related problems in a manner least intrusive to the neighbourhood. To accomplish this goal Council has developed this procedure to assure a systematic and comprehensive approach to each situation.

A study is necessary in order to determine if there is a traffic concern which can be effectively addressed by installing traffic calming practices. The two most common concerns the program addresses are speeding and cut through traffic in residential areas.

A study can be initiated by one of the following methods.

- a. Residents may request a study by letter to Council.
- b. The Director of Manager may authorise a study of a traffic problem area identified by staff.
- c. Council may direct staff to conduct a study.

Upon receipt of a request or a direction to conduct a study, Council will make a preliminary site visit and review available data, including accident reports to determine if there is a readily apparent safety problem. Speed studies and traffic volume counts may also be conducted at this time. Should it be determined that the location is not appropriate for a traffic calming project requiring physical alterations to the roadway or that the concerns can be addressed in some other form, a meeting will be held with the party initiating the request or in the case of Council directive, a report will be prepared stating the conclusions and recommendations of staff. In the event that there is a justification for a major traffic calming project or there is specific direction to proceed with one, the following process will be followed.

1. Traffic Calming Study

- a) The geographic area that would be impacted by modifications to traffic patterns will be identified.
- b) All residents and property owners within the identified impacted area will be contacted by letter advising them of the traffic calming study and surveyed as to their observation of any specific traffic related problems.
- c) Speed, traffic volume and accident investigations will be conducted, if not done in the preliminary evaluation, to determine the extent of safety problems.
- d) Site surveys will be made to inventory site specific information which may contribute to traffic concerns. Area inventory shall include review of visual obstructions, street grades, street widths, street network, sidewalk network, major thoroughfare plan, sidewalk and bicycle plans, existing traffic control, parking prohibitions, speed limits, school zones, and future projects which may affect the traffic in the study area.
- e) A neighbourhood meeting will be held inviting all persons in the identified area of impact and any neighbourhood associations in the area. The purpose will be to present findings of the study and gather input as to desired actions to address concerns.
- f) A preliminary report will be prepared indicating results of studies, surveys, and resident requests. The report will contain staff recommendations for action and cost estimates. The preliminary report will be provided to residents and

other impacted parties for review and final comment prior to being submitted to Council.

2. Report to Council

Based on the outcome of the warrant system, the request for traffic calming may require a report to Council, if it meets the warrant, or a respond will be made direct to the person who has made the request.

Upon completion of the report, it will be submitted to Council with a staff recommendation. The report will explain the results of the traffic calming study, indicate the presence of safety concerns and determine if warrants for installing Traffic Calming are met.

3. Traffic Calming Project Design

If a traffic calming project is authorised by Council, the traffic engineer will work in accordance with the TfNSW guidelines and Australian Standards to develop a plan within the Traffic Calming Guidelines to address the traffic concerns which were warranted by the Traffic Calming Study.

4. Public Consultation

A public consultation will be held by the Council for the authorisation to install the traffic calming project. Discussion will include: project design, goal, neighbourhood involvement and endorsement, cost estimate, funding source, construction, and public discussion.

D. Criteria and Warrants for Installing Traffic Calming Practices

Council warrants system incorporate the following features:

- A point scoring system which incorporates increments to reflect the magnitude of each criteria to determine priorities for traffic management;
- A higher weighting is given to the more important criteria, typically traffic speed, crashes and adjacent land use activity;
- A higher weighting is given to the more important criteria, typically traffic speed, crashes and adjacent land use activity;
- Different street types and classifications are scored differently for the same data;
- Both individual streets and local traffic areas can be treated and can be prioritised;
- The system is readily understood and completely transparent;
- The system allows for potential projects to be quickly identified or rejected with a cut-off point reflecting budget funding for the candidate sites;
- The system incorporates flexibility to separately fund traffic management projects as part of street reconstruction streetscape on urban renewal initiatives.

Key Warrant Criteria

The essential criteria that should be included in a warrants system include:

- Traffic Speed – best represented by the 85th percentile speed
- Traffic Volume – should include both vehicles per day (overall demand) and highest hourly volume (peak hour demand)
- Crashes – include fatalities, serious injuries and other injuries as separate criteria
- Activity Generators – considered in terms of likely pedestrian and bicycle generation, especially by children.

Other criteria that could be incorporated into ‘warrants’ system subject to the availability of traffic data includes:

- Through traffic – expressed as a proportion of the total volume
- Heavy vehicles – expressed as a proportion of the total volume

Table below documents the criteria recommended for Holroyd, and the weighting of those criteria using the point scoring values in the table.

Traffic Parameter	Value	Point
<i>Traffic Study Data</i>		
Traffic Volumes	>2000 vpd	15
	>1000 vpd	10
	> 500 vpd	5
	<500 vpd	0
85th Percentile Speed and Median Speed (EACH)	> 10 kph above posted speed	15
	> 7 kph above posted speed	10
	> 5 kph above posted speed	5
	< 5 kph above posted speed	0
Number of crashes in the last 5 years	>5 crashes (injury)	15
	Between 3 to 5 crashes in 5 years	10
	Between 1 to 2 crashes in 5 years	5
	No crashes in 5years	0
	Others	10
Road Characteristics		
Parking	Heavy - 80% occupied	4
	Moderate - 50% occupied	2
	Low - 30% occupied	1
	Rarely Occupied	0
Land Use & Area Characteristics	Dense Residential/Commercial/Industrial/School/Town centres	4
	Medium density Residential/Commercial/Industrial/Senior Homes/Hospitals/Nursing Homes	2
	Lowly density Residential/Commercial/Industrial/Sporting Complex/Parks/Car Parks	1
	All others	0
	Bus Routes	Frequent Routes - Minimum 5 per day
	Infrequent Routes - less than 5 per day	2

	School Bus Routes	1
	No Bus Routes	0
Heavy Vehicle restrictions	3T restriction	4
	5T restriction	2
	10T restriction	1
	Others	0
Footpaths	No footpaths	4
	Partial F/P or on one side	2
	Others	0
Pedestrian facilities	Any formal crossing	4
	Any crossing facility (refuges)	2
	Others	0
Road Width	Less than 6 m	4
	Between 6m and 10 m	2
	Between 10 m and 15 m	1
	Others	0
Road Length	Greater than 500 m	4
	Between 100 m and 500 m	2
	Others	0
Existing traffic calming devices	Heavy	0
	Moderate	1
	Low	3
	None	3
Community Support & Other factors	Petition	5
	Clrs, MPs, elected rep	5
	Ratepayer	3
TOTAL (maximum =100)		
Percentage		
Rank		

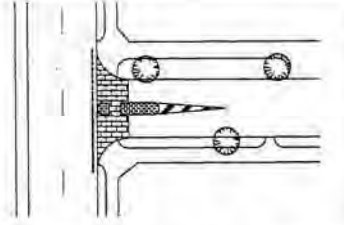
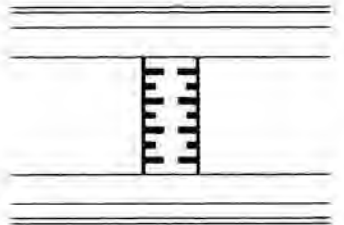
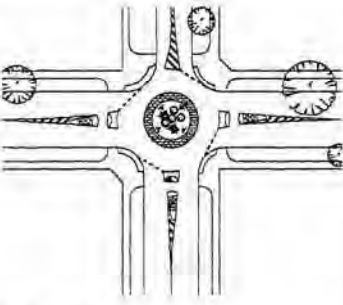
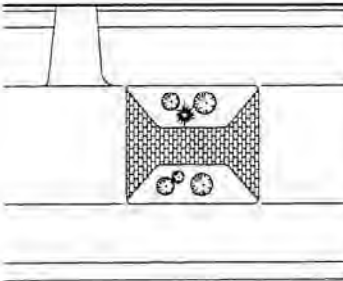
Following table indicates the action to be taken according to the points show in the above table.

Criteria	
>75	Report to HTC with a recommendation of providing traffic calming devices
61-75	Report to HTC and discuss possibility of providing traffic calming
41-60	Council to review traffic data in 6 months (No report to HTC required)
25-40	Monitor street and review traffic data after 12 months (No report to HTC required)
<25	Do Nothing
Speed	That regardless of the total points scored, should the 85th percentile speed exceed the posted speed limit by 5 km/h, the street be referred to the NSW Police for monitoring and/or enforcement

Attachment A

Australian Standard AS 1742.13-1991

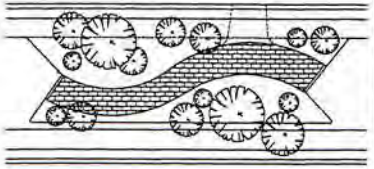
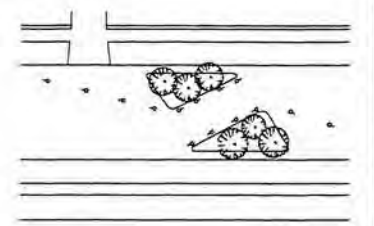
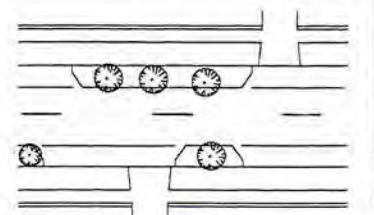
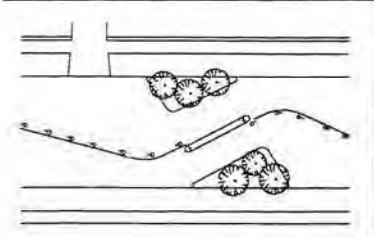
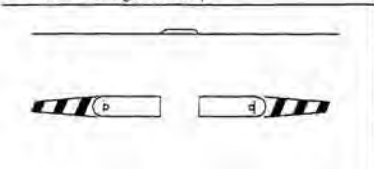

TABLE 2.1
LATM DEVICES—ADVANTAGES AND DISADVANTAGES

LATM device	Advantages	Disadvantages
 <p>1 Perimeter (threshold) treatment</p>	<p>Provides a positive indication that a driver is leaving the arterial road system and entering a local area. Reduces entry speeds. Can provide a useful staging for pedestrians. Provides a landscaping opportunity.</p>	<p>Low speed turns from the arterial road may affect traffic flow on the arterial road</p>
 <p>2 Road hump</p>	<p>When correctly positioned, it reduces vehicle speeds in the vicinity of the hump. When used in a series, it reduces speeds over the entire length of the street. Through traffic is often discouraged from using the street. It is a relatively low cost device to install and maintain.</p>	<p>May increase noise due to braking, acceleration and vertical displacement of vehicles. Reduces the 85th percentile speeds but may leave unaffected the small percentage of high speed vehicles.</p>
 <p>3 Roundabout</p>	<p>Reduces the number of conflict points in an intersection. Reduces vehicle speeds through the intersection. Provides orderly and continuous flow of traffic. Clarifies priority and simplifies decision making. Increases conspicuity of the intersection.</p>	<p>May be restrictive for some larger service and emergency vehicles unless the roundabout is mountable. May involve considerable construction costs, especially if land acquisition is required. May increase noise because of extra gear changing. May require special lighting at an added cost.</p>
 <p>4 Single-lane slow point</p>	<p>Reduces speed near the device. When used in series it reduces overall speed. Discourages through traffic. Imposes minimal inconvenience to local residents. Increases pedestrian safety. Provides a landscaping opportunity.</p>	<p>Landscaping needs to be maintained to ensure that visibility is not blocked. It is contrary to driver expectations if used in isolation. There is possibility of increased noise. Can be hazardous for vehicular traffic and cyclists if not designed and maintained correctly. Confrontation between opposing drivers arriving simultaneously could create problems.</p>

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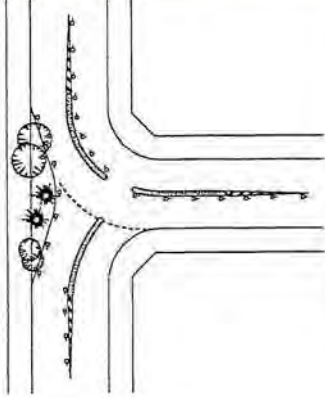
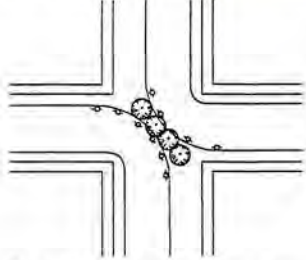
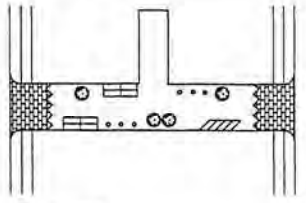
TABLE 2.1 (continued)

LATM device	Advantages	Disadvantages
	<p>As for (4) Provides greater visual obstruction than (4). Can provide opportunity for substantial landscaping.</p>	<p>May restrict emergency vehicles. May increase the area to be maintained by residents. Cost can be considerable because of its length. (Best installed when the street is due for reconstruction.)</p>
<p>5 Driveway link</p> 	<p>As for (4)</p>	<p>As for (4). May restrict emergency vehicles.</p>
<p>6 Single-lane angled slow point</p> 	<p>Causes only minor inconvenience to local users. Regulates parking and serves to protect parked vehicles. Can be used at intervals to produce landscaping scheme.</p>	<p>Not very effective in reducing speeds. Not very effective as a visual obstruction.</p>
<p>7 Two-lane slow point</p> 	<p>As for (4), except that the increase in pedestrian safety may be smaller.</p>	<p>As for (4) It is usually less effective in controlling speeds than other devices. May restrict emergency vehicles. Is not very effective as a visual obstruction.</p>
<p>8 Two-lane angled slow point</p> 	<p>Provides a refuge for pedestrians and cyclists crossing the street. Visually enhances the residential streetscape when landscaped.</p>	<p>Will not reduce speeds by as much as a vertical displacement device, or other horizontal displacement devices.</p>
<p>9 Mid block island</p> 		

(continued)

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TABLE 2.1 (continued)

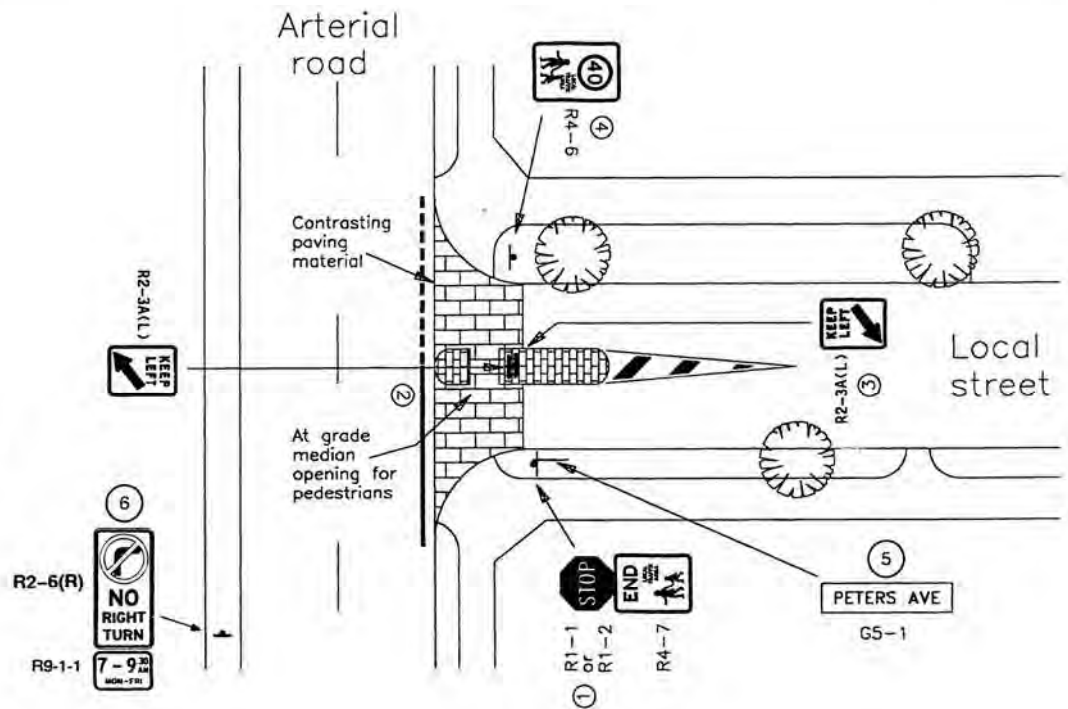
LATM device	Advantages	Disadvantages
 <p data-bbox="357 808 550 824">10 Modified intersection</p>	<p data-bbox="742 510 1070 678">Reduces vehicle speeds in the vicinity of the device. Can lower vehicle speeds along the length of the street when placed in series. May discourage through traffic along the top of the 'T'. May be used to reinforce changes in priority resulting from alterations to the positioning of STOP signs or GIVE WAY signs.</p>	<p data-bbox="1098 510 1343 611">Can be hazardous for vehicular traffic and may cause confusion regarding intersection priority if not correctly designed. Must be designed to accord with State regulations.</p>
 <p data-bbox="357 1115 671 1149">11 Road closures (a diagonal closure is illustrated)</p>	<p data-bbox="742 925 1023 1014">Eliminates through traffic. Provides landscaping opportunities. Reduces conflict points if used at an intersection. Increases pedestrian safety.</p>	<p data-bbox="1098 925 1343 1037">May inconvenience residents in gaining access to their properties. Can shift traffic volumes to adjacent streets. May inhibit access by emergency vehicles.</p>
 <p data-bbox="357 1379 491 1397">12 Shared zone</p>	<p data-bbox="742 1238 1070 1328">Provides a low speed environment which is safer for pedestrians and cyclists. Can improve amenity without affecting access. Provides for flexibility of parking layouts.</p>	<p data-bbox="1098 1238 1177 1256">High cost.</p>

2.11 APPLICATION OF LATM DEVICES LATM devices should not generally be used as isolated treatments, but rather should ideally be installed as a consistent area-wide traffic management scheme in a local area. Implementation of such schemes may need to be staged over a period, and care in locating individual devices in each stage is necessary.

A typical scheme comprises the following elements:

- (a) Perimeter (threshold) treatments at each point of access from the surrounding arterial or sub-arterial streets.
- (b) A local area speed limit.
- (c) Internal LATM devices selected as appropriate from those listed in Table 2.1, and placed at regular and frequent intervals, generally 80 m to 120 m apart on any one street.

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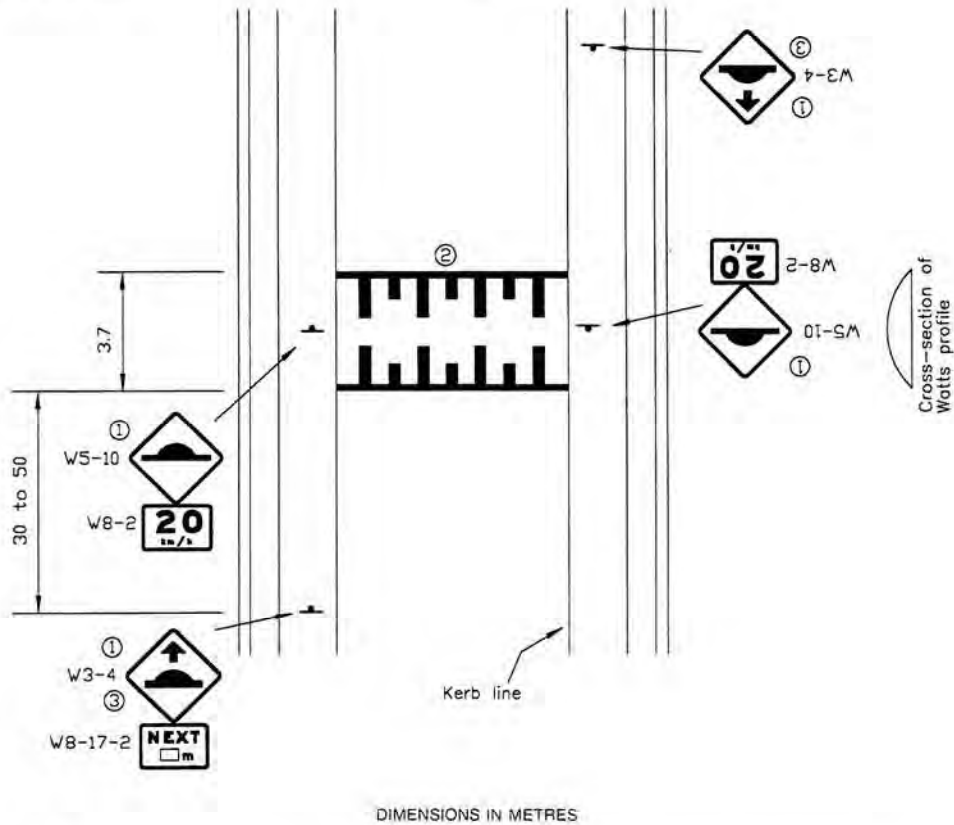


NOTES:

- 1 Refer to Clause 2.2 regarding the use of STOP signs and GIVE WAY signs.
- 2 The design of these treatments should allow for safe turns from the arterial road. This may require locating the splitter island further away from the intersection, or relocation of sign R2-3A, or both.
- 3 Sign R2-3A may not be necessary where traffic is clearly required to pass to the left of the island.
- 4 Refer to Clause 3.3 regarding the use of local area speed limits. The Truck Prohibition sign, R6-10-2, or the UNSUITABLE FOR LARGE VEHICLES sign, G9-41, may be used in conjunction with this sign if required. Use of Truck Prohibition sign, R6-10-2, is specified in AS 1742.12.
- 5 For details of the design and use of Street Name signs, refer to AS 1742.5.
- 6 The NO RIGHT (LEFT) TURN sign, R2-6(R) or R2-6(L), together with an appropriate Times of Operation module, e.g. R9-1-1, may be required to prohibit use of local streets as peak-hour short cuts.

FIGURE 3.1 PERIMETER (THRESHOLD) TREATMENT

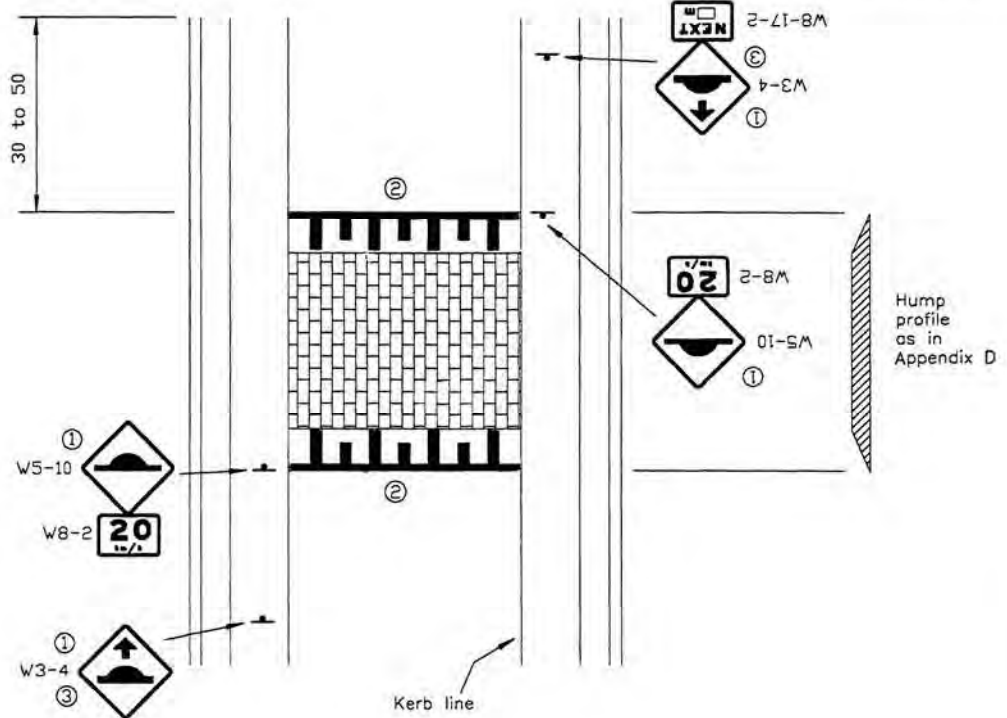
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- NOTES:
- 1 Sign W3-4, and sign assemblies W5-10/W8-2 and W3-4/W8-17 are not generally required when the device is part of an area-wide scheme.
 - 2 For details of hump line marking refer to Clause 4.3.6. This may be omitted on humps of a contrasting colour where the hump is clearly visible under all conditions.
 - 3 Sign W3-4 is used in advance of an isolated hump installation. Sign W8-17-2 is added if it is the first hump in a series.
 - 4 The hump may be supplemented with kerb extensions, e.g. of the type illustrated in Figure 3.6.

FIGURE 3.2 WATTS PROFILE ROAD HUMPS

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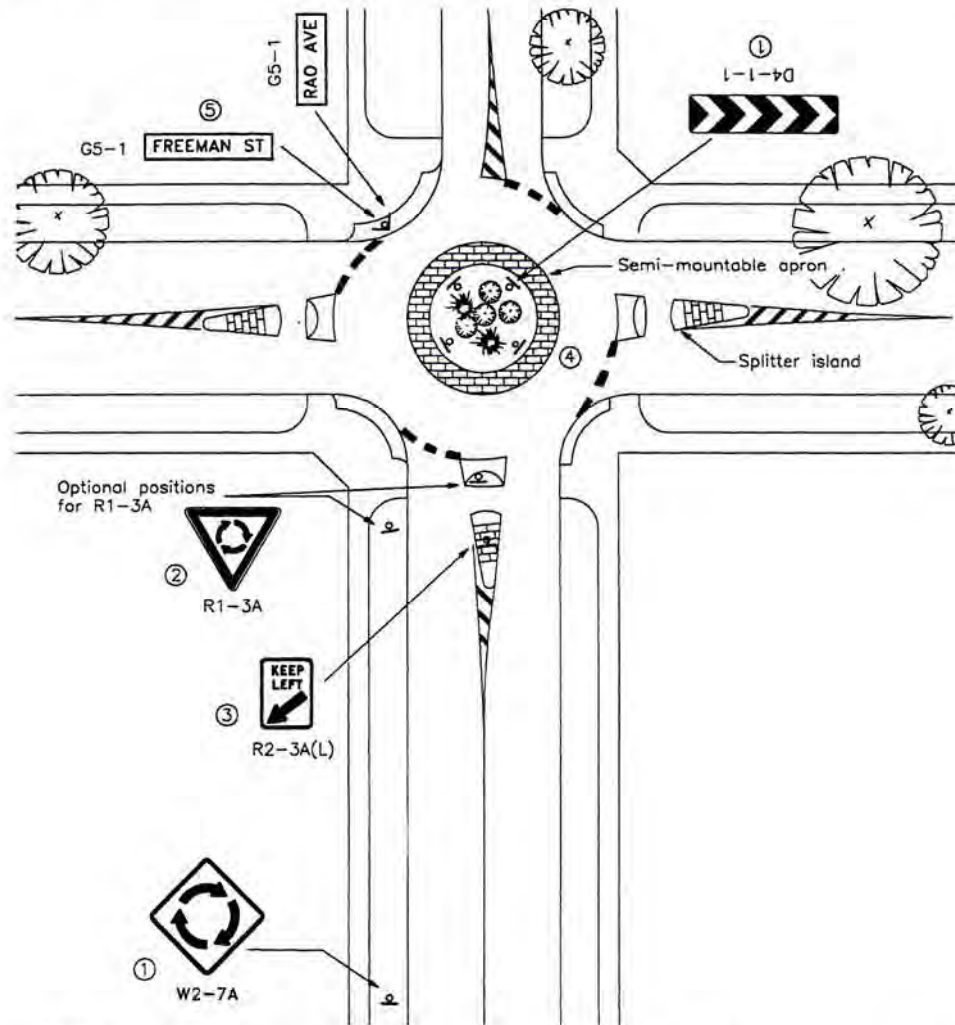
DIMENSIONS IN METRES

NOTES:

- 1 Sign W3-4, and sign assemblies W5-10/W8-2 and W3-4/W8-17 are not generally required when the device is part of an area-wide scheme.
- 2 For details of hump line marking refer to Clause 4.3.6. This may be omitted on humps in an area-wide scheme but only where the hump is of contrasting colour such that it is clearly visible under all conditions.
- 3 Sign W3-4 is used at an isolated hump installation. Sign W8-17-2 is added if it is the first hump in a series.
- 4 The hump may be supplemented with kerb extensions, e.g. of the type illustrated in Figure 3.6.
- 5 Flat top humps may be combined with a pedestrian facility or a bus stop.

FIGURE 3.3 FLAT TOP ROAD HUMP

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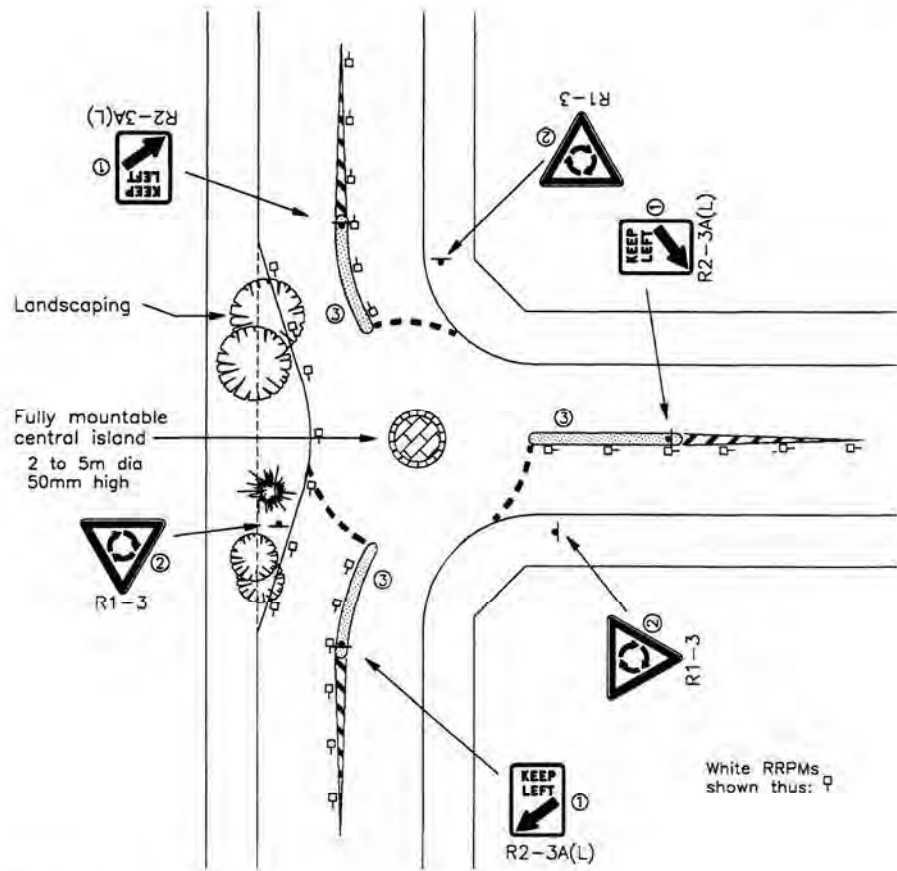


NOTES:

- 1 Signs W2-7A and D4-1 are not generally required in local streets, and should only be used where there is poor visibility to the roundabout from one or more approaches.
- 2 Sign R1-3 if used should be placed on one or both sides of an approach as needed to provide maximum conspicuity for approaching drivers. It may be omitted from a treatment if not required by State regulations.
- 3 Sign R2-3A may not be necessary where traffic is clearly required to pass to the left of the island.
- 4 Height of landscaping in the central island should be such as not to restrict visibility across the island.
- 5 For details of the design and use of Street Name signs, refer to AS 1742.5.

FIGURE 3.4 LOCAL STREET ROUNDABOUT

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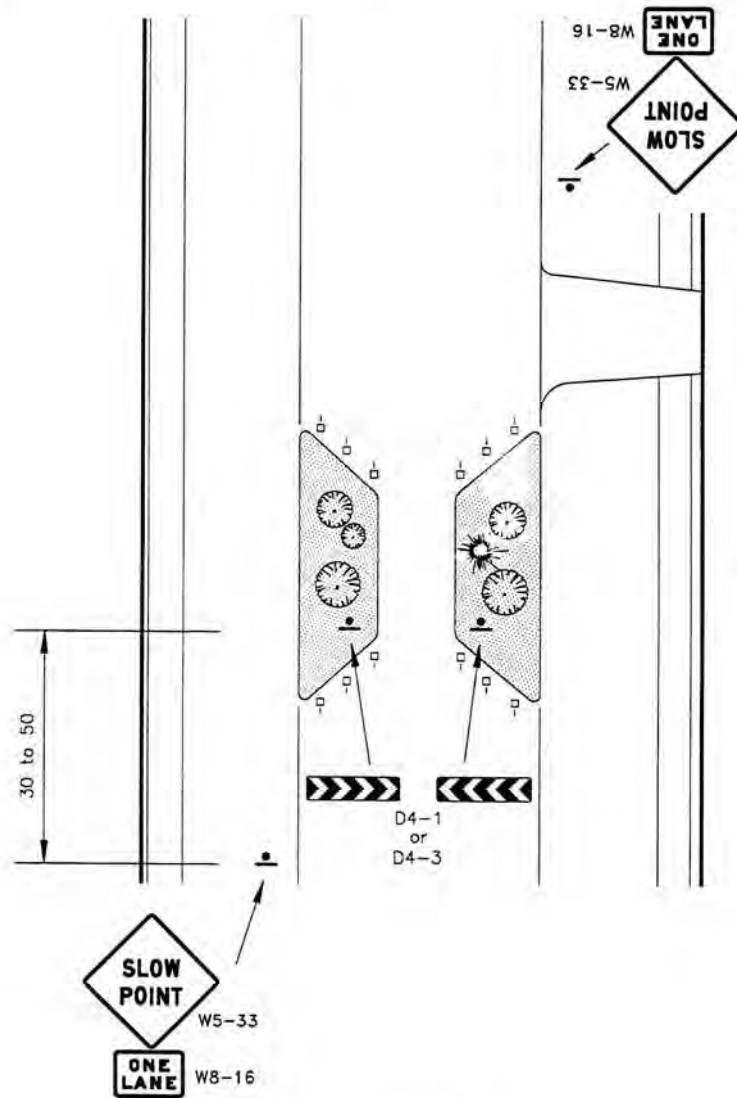


NOTES:

- 1 Sign R2-3A may not be necessary where traffic is clearly required to pass to the left of the island.
- 2 Sign R1-3 if used should be placed to create maximum conspicuity for approaching drivers. It may be omitted from a treatment if not required by State regulations.
- 3 Walk-through gaps at pavement level may be provided in median islands.

FIGURE 3.5 SMALL DIAMETER ROUNDABOUT

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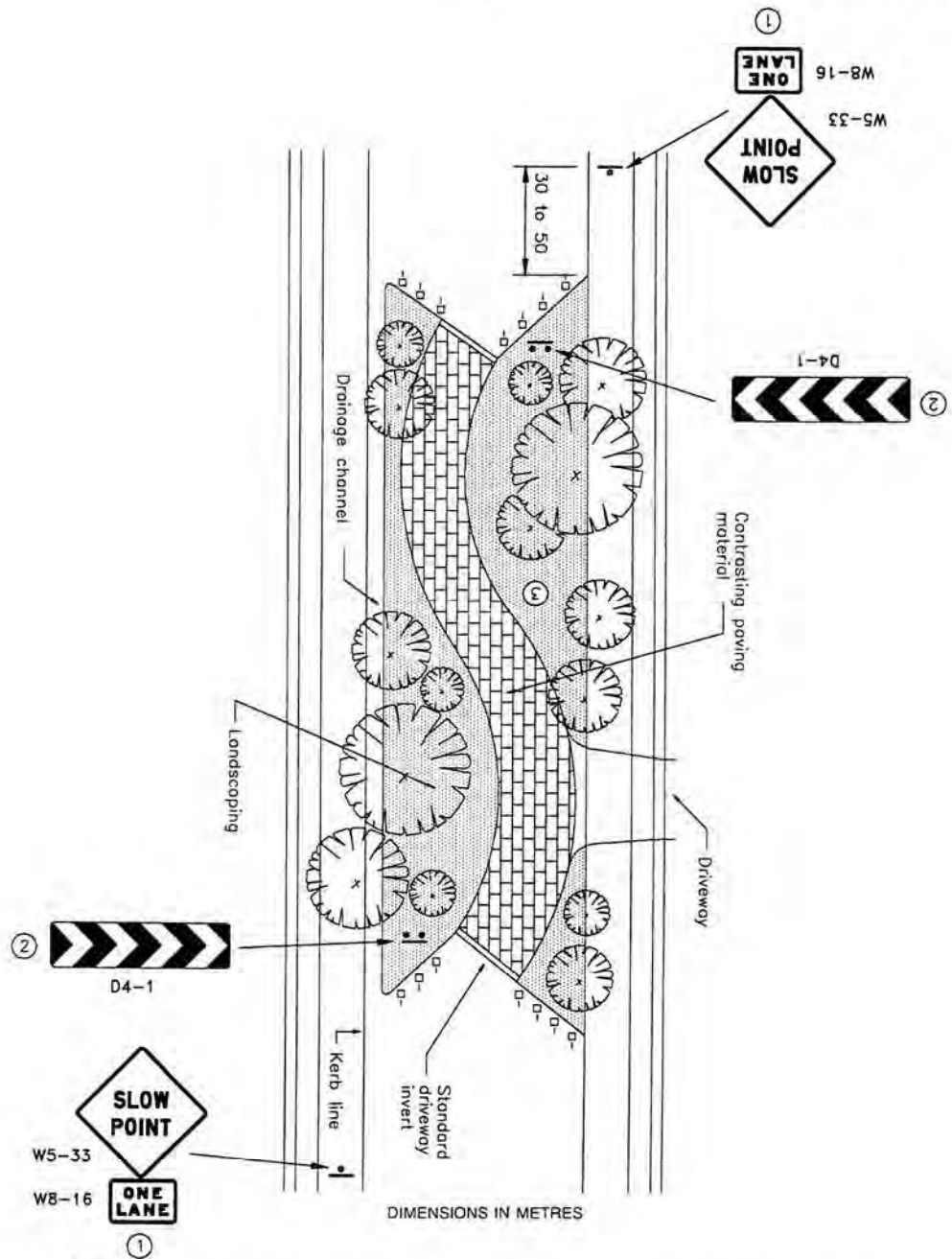
DIMENSIONS IN METRES

NOTES:

- 1 Sign assemblies W5-33/W8-16 and D4-1 or D4-3 are not generally required when the treatment is part of an area-wide scheme.
- 2 To achieve satisfactory speed reduction, it may be necessary to incorporate a road hump in this device. If so, and if signs are required, the signing arrangement shall be in accordance with Figure 3.2.

FIGURE 3.6 SINGLE-LANE SLOW POINT

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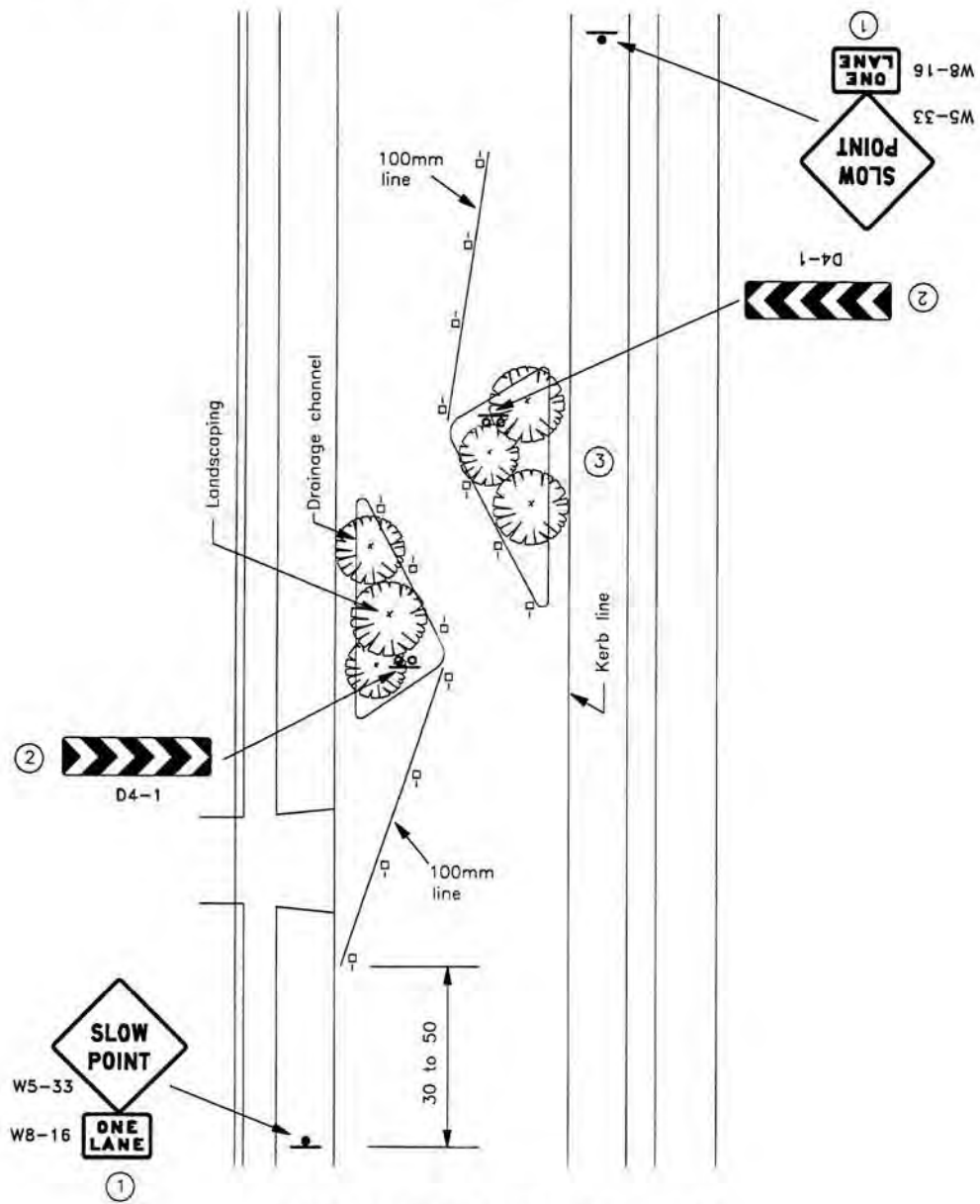


NOTES:

- 1 Sign assembly W5-33/W8-16 is not generally required if the treatment is part of an area-wide scheme, there is adequate visibility to the device and approach speeds are low. If approach speeds are high, the Advisory Speed sign, W8-2, may be required in lieu of, or as well as, the W8-16 sign.
- 2 Hazard markers, D4-1, may be omitted if the treatment is part of an area-wide scheme.
- 3 Passing points may be required if the link is excessively long or drivers are not able to see from one end to the other.

FIGURE 3.7 DRIVEWAY LINK

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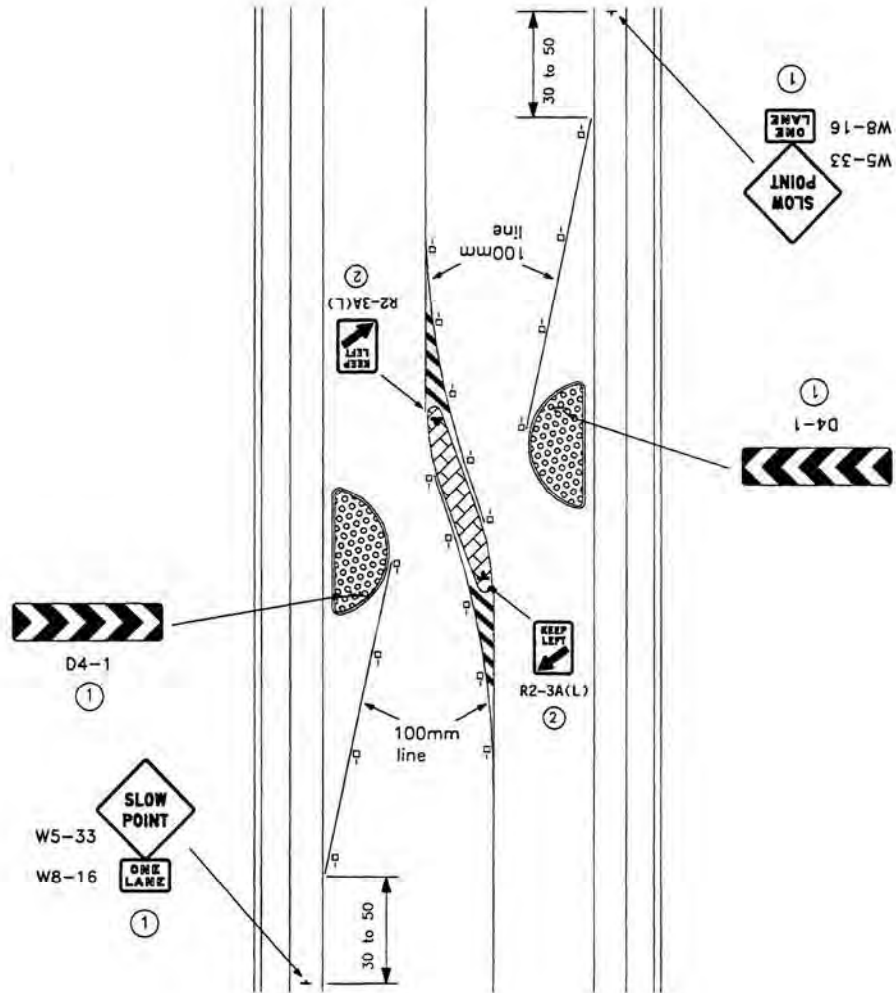
DIMENSIONS IN METRES UNLESS OTHERWISE SHOWN

NOTES:

- 1 Sign assembly W5-33/W8-16 is not generally required when the treatment is part of an area-wide scheme. If approach speeds are high, the Advisory Speed sign, W8-2, may be required in lieu of, or as well as, the W8-16 sign.
- 2 Hazard markers, D4-1, may be omitted if the device is part of an area-wide scheme.
- 3 Special consideration should be given to the provision of safe passage for bicyclists. If provided behind the slow point, it should be able to be kept free from rubbish.

FIGURE 3.8 SINGLE-LANE ANGLED SLOW POINT

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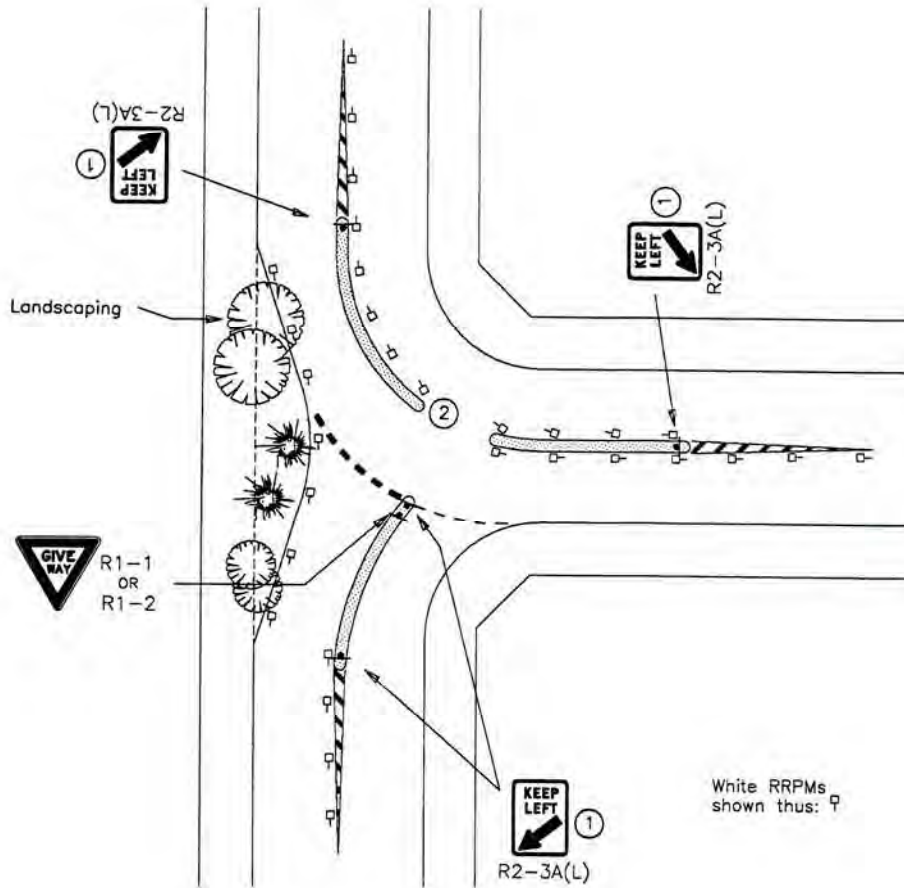
DIMENSIONS IN METRES UNLESS OTHERWISE SHOWN

NOTES:

- 1 Signs W5-33 and D4-1 are not generally required when the treatment is part of an area-wide scheme. If approach speeds are high, the Advisory Speed sign, W8-2, may be required with the W5-33 sign.
- 2 Sign R2-3A may not be necessary where traffic is clearly required to pass to the left of the island.

FIGURE 3.9 TWO-LANE ANGLED SLOW POINT

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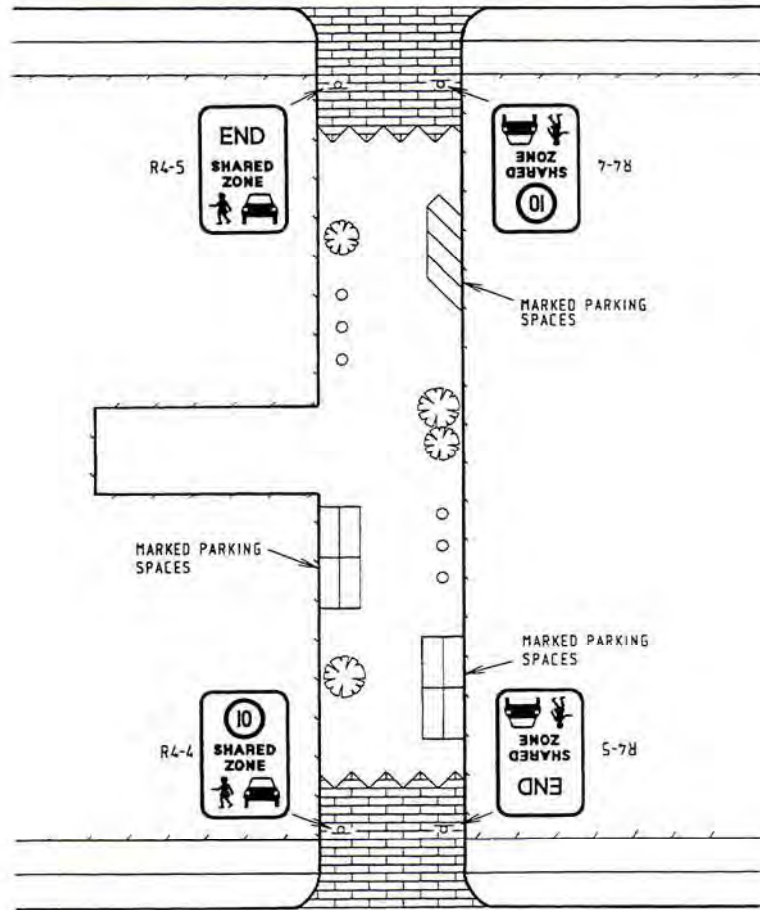


NOTES:

- 1 Signs R2-3A may not be necessary where traffic is clearly required to pass to the left of the island.
- 2 Drivers making a right turn must be slowed and deflected by a raised island to emphasize that they are making a right turn and must give way to oncoming traffic.
- 3 This type of treatment may need to be supported by State regulations.

FIGURE 3.10 MODIFIED T-INTERSECTION

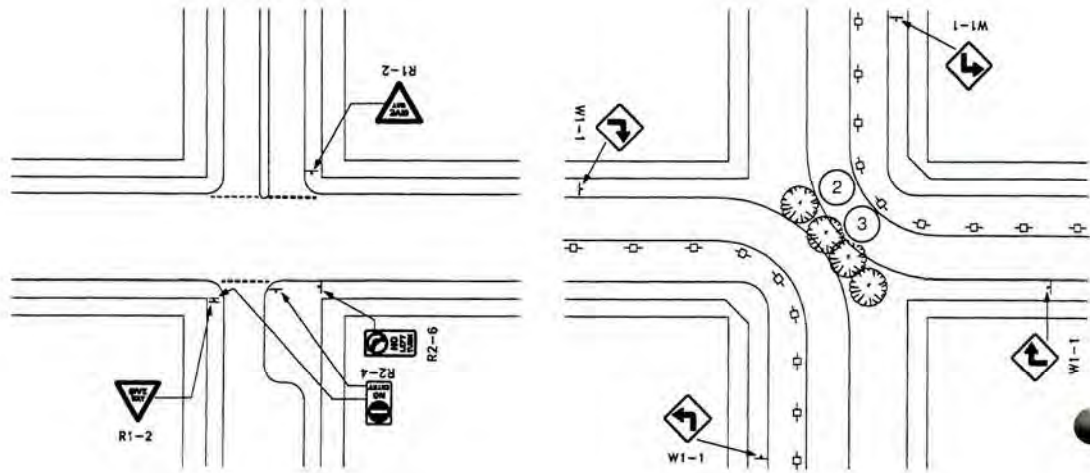
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NOTE: This treatment should not be used unless supported by State regulations.

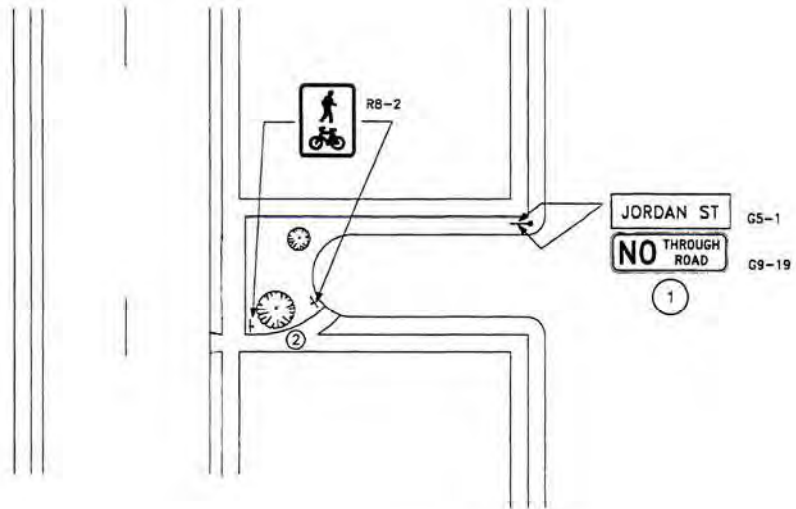
FIGURE 3.11 SHARED ZONE

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(a) Partial closure

(b) Diagonal closure



(c) Full closure

NOTES:

- 1 Refer to AS 1742.5 for details of street name signing.
- 2 Provision for pedestrians, cyclists and emergency vehicles should be made at all road closures. Provision for pedestrians and cyclists by means of appropriate signs specified in AS 1742.9, may be required.
- 3 Hazard markers (e.g. D4-1) may be required within the landscaped area until landscaping is fully established.

FIGURE 3.12 ROAD CLOSURES

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Attachment B

RTA Technical Direction

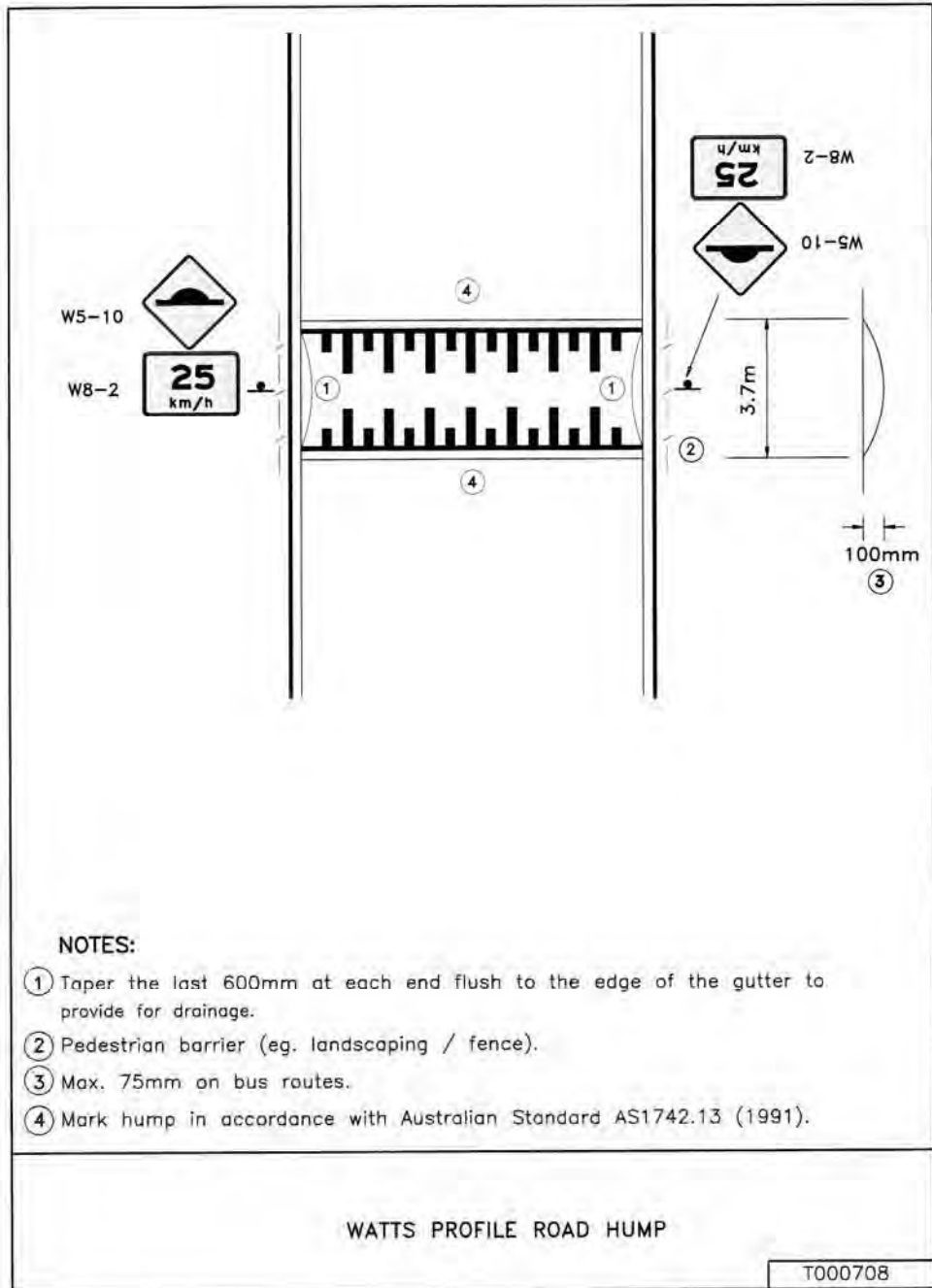


FIGURE 1

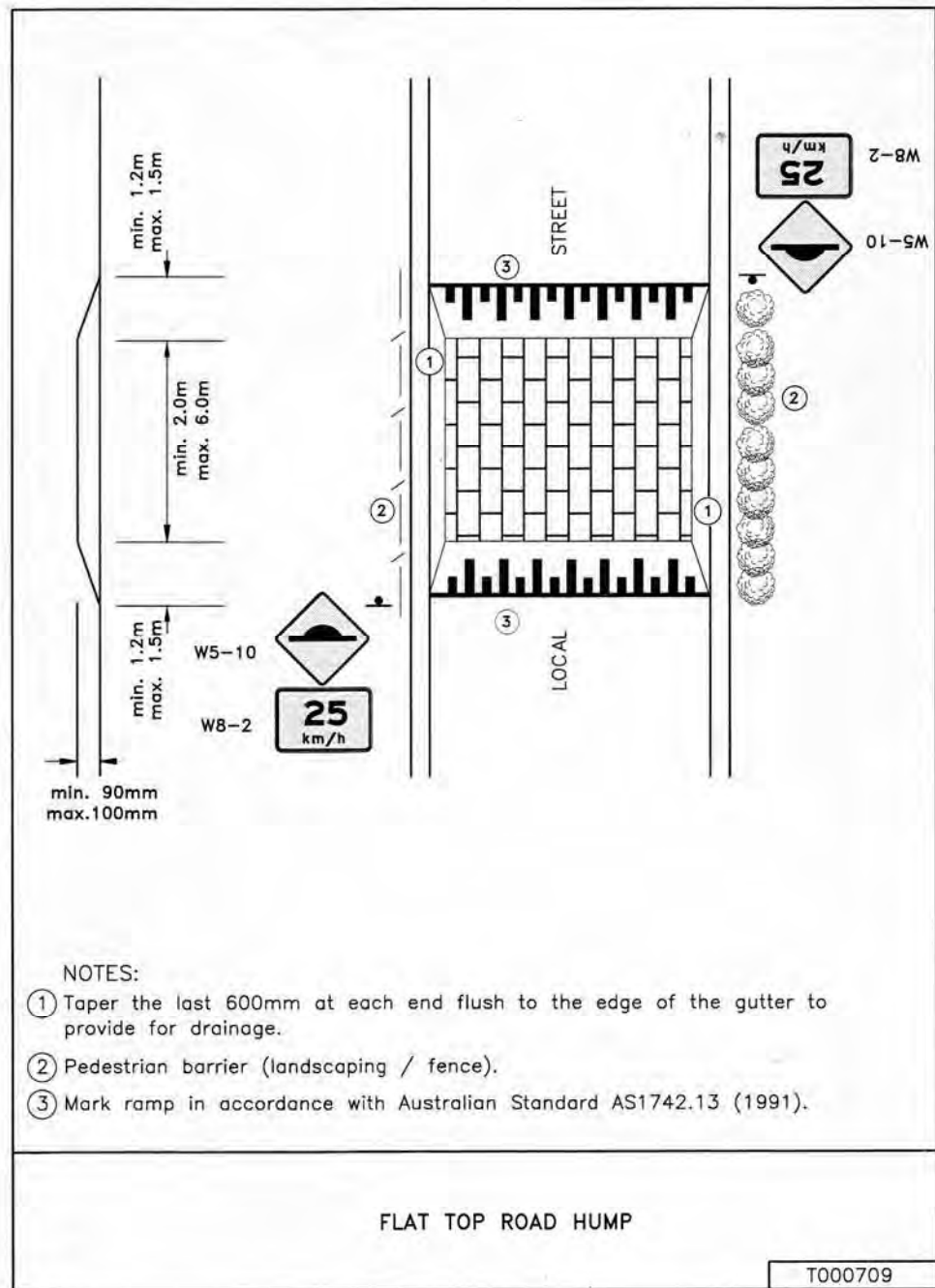


FIGURE 2

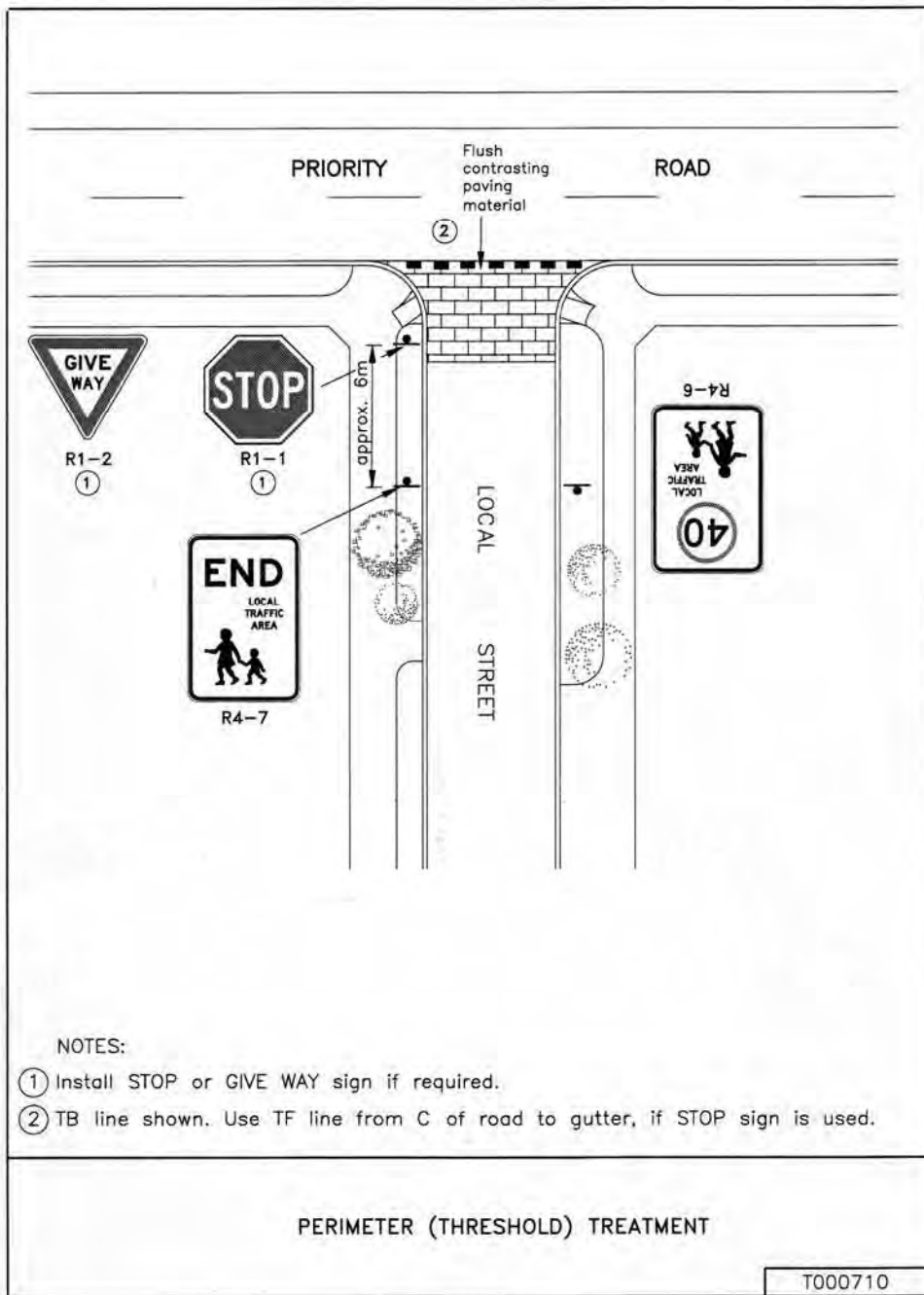


FIGURE 3

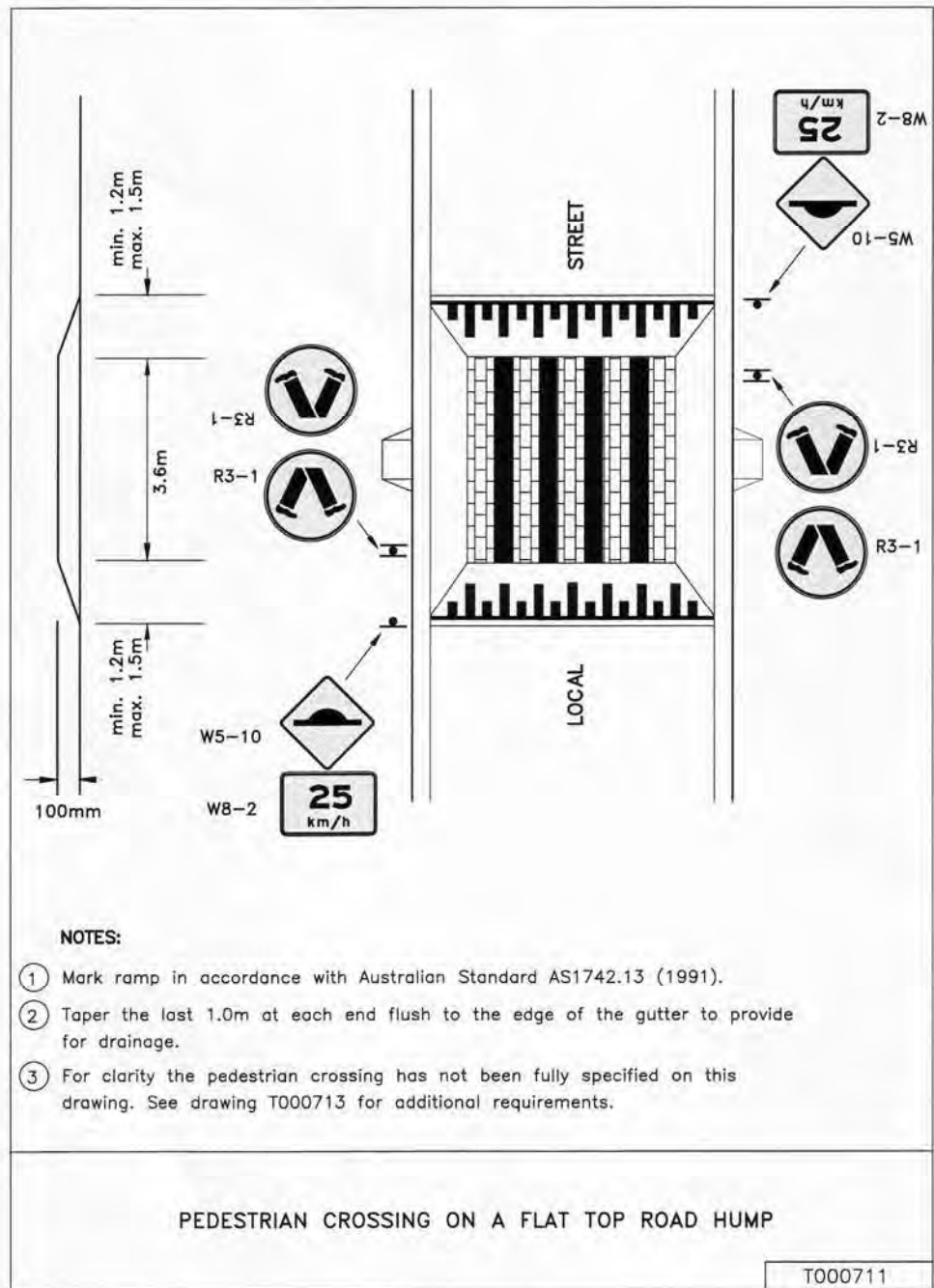


FIGURE 4